DOCUMENT RESUME

ED 147 203 SO 010 336

AUTHOR Leonard, Wilbert Marcellus, II
TITLE Altruistic Behavior among College Students: An Investigation of the Social and Psychological Characteristics of Blood Donors.
PUB DATE 6 Sep 77
NOTE 27p.; Paper presented at Annual Meeting of the American Sociological Association (72nd, Chicago, Illinois, September 5-9, 1977); Not available in hard copy from EDRS due to poor reproducibility of original document

EDRS PRICE MF-$0.83 Plus Postage. HC Not Available from EDRS.
DESCRIPTORS *Altruism; *Behavioral Science Research; *Behavior Patterns; *College Students; Data Analysis; Field Studies; Group Behavior; Higher Education; Individual Characteristics; Literature Reviews; *Prosocial Behavior; Social Attitudes; Social Characteristics; Social Psychology; Statistical Analysis; Student Characteristics; Tables (Data); Values

ABSTRACT

The document describes a field study to investigate the relationship between altruism and blood donating behavior among members of a large midwestern college community. Altruistic behavior is interpreted as combining three motivations: (1) reward-cost, also referred to in terms of behavior as social exchange; (2) social responsibility and reciprocity; and (3) good moods and feelings. Review of social science literature indicates most investigations of altruistic behavior have dealt with emergency-type situations. Intended as a supplement to these investigations, the paper measures the behavioral manifestations of altruism through prosocial behavior in a blood donating situation. Volunteer blood donors were directed to respond to an eight item questionnaire concerning age, sex, race, year in school, socioeconomic status, religion, reasons for volunteering, and feelings after donating. The first six variables were cross tabulated with reasons and feelings, statistically analyzed, and compared with the total college community. Findings indicated that 70% of blood donors were motivated out of a sense of social responsibility. About 10% apparently contributed out of a sense of obligation, with the remaining 20% donating blood for a variety of reasons. Female and white students were significantly overrepresented as donors. Tables, the questionnaire, and references are presented in the appendix. (Author/DB)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

DEC

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

"PERMISSION TO REPRODUCE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY
W. M. Leonard II

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

ED147203

ALTRUISTIC BEHAVIOR AMONG COLLEGE STUDENTS: AN INVESTIGATION OF THE SOCIAL AND PSYCHOLOGICAL CHARACTERISTICS OF BLOOD DONORS

Wilbert Marcellus Leonard, II
Department of Sociology-Anthropology

Illinois State University
Normal, Illinois 61761

SO 010 336

ACKNOWLEDGMENTS

Thanks is hereby expressed to the Bloomington Red Cross and the APO social organization for permitting us to conduct this study. Similarly, I would like to express a word of gratitude to the interviewers from my Fall, 1975 social statistics (SOA 340) and social psychology (SOA 131) classes.

Several years ago Krebs (1970) identified three commonly held beliefs apropos altruistic behavior.[1] Accordingly, a prosocial act is considered to be volitional (performed voluntarily), intrinsically motivated (the act is an end in itself and not performed for ulterior motives) and other-oriented (intended to benefit another person or group). These prerequisites actually dovetail into an overall consistent configuration. However, the operationalization of helping behavior along these lines presents real methodological problems. In short, in studying altruism it behooves the researcher to be very specific about the conceptualization of the idea as well as its measurement.

Granted the elusiveness of the term, let us briefly highlight several alternate ways of defining it. Firstly, altruism may be defined in a motivational sense, that is, the focus is upon the reasons why a benevolent behavior is performed. As social researchers know, ferreting out the "whys" of any behavior presents methodological problems, particularly those of validity since an outside criterion against which to compare and contrast responses is virtually nonexistent. According to the motivation definition of prosocial behavior the act is intrinsically motivated and performed for the sake of another or others . . . no benefits accrue to the actor. From a behavioristic standpoint this conceptualization is questionable since it is contended that for any act to occur, and especially reoccur, there must be some rewards (positive reinforcement) experienced by the actor. Because of the pitfalls of adequately determining peoples' thoughts, feelings, and motives most social psychologists, including this one, prefer to define altruism in a behavioral sense.

---

[1]In this manuscript I take the liberty of using the terms "altruism," "prosocial" and "helping" interchangeably. Berkowitz (1975) and others (Severy, Brigham, and Schlenker; 1976) distinguish between at least altruism and helping behavior. Ordinarily, altruism is considered helping others without any intent or hope of obtaining something in return whereas helping behavior refers to intervention which may (or may not) be for ulterior motives.

Behaviorally speaking, helping behavior is conduct that helps another (or others) regardless of the motives. From this vantage point an act which apparently helps another is prosocial in nature. However, even this perspective has liabilities. Probably the most serious deficiency of this definition is the pitfall of lumping together all acts that are overtly advantageous to another. Important and meaningful motivational differences are obscured. Despite the less-than-desirable implications of a behavioral definition many social psychologists prefer it because it facilitates the measurement process. In short, this approach has been recommended since it permits a more objective measure of the phenomenon.

CONCEPTUAL FRAMEWORKS FOR STUDYING PRO-SOCIAL BEHAVIOR

Why do people help? Currently there exist three explanations for helping behavior. These three explanatory mechanisms are not mutually exclusive but may, in combination, affect the incidence of altruistic conduct. Let us briefly consider, initially, the behavior as social exchange notion. Sometimes this is referred to as the "reward-cost" explanation of helping behavior. According to this stance when rewards outweigh costs--symbolically and/or materialistically--the probability of altruism is enhanced. Empirical investigations have substantiated this position since rewards (broadly defined) e.g., providing material incentives (Middlebrook, 1974), social reinforcement (Winchester, 1969; Traester, 1968), helping liked and similar persons (Goodstat, 1971; Feldman, 1968); belief in meaningfulness of contribution (Fellner and Marshall, 1970), and maximizing one's sense of self worth (Fellner and Marshal, 1970; Smith, 1969), have increased the frequency of altruism.

The converse is also true, that is, costs (broadly defined) have been found to reduce the incidence of such behavior. Again, research has shown that increasing costs, e.g., type of request (Darley and Latane, 1970), threat of danger (Allen, 1970), lack of environmental familiarity (Darley and Latane, 1970), financial costs (Wagner and Wheeler, 1969; Schaps, 1972), and time pressures (Darley and Batson, 1970), reduces the probability of helping activity.

Despite the empirical support for the reward-cost explanation, numerous difficulties exist with this approach. For example, reward and cost seem to be difficult to define prior to an investigation. That is, what might be rewarding (or costly) to one person may not be for another. Additionally, if the terms are not precisely defined it (the cost analysis approach) leads the door open to circular reasoning; viz., increasing rewards increases altruism; and since this manipulation increases altruism, it increases rewards (Middlebrook, 1974;348).

A second conception of why people help is a normative one. During the socialization process norms--social expected, desired, and even required moral dictates--are passed along to us via the socialization agents (parents, clergy, teachers, etc.). Such phrases as "Be nice to others;" "help those who need your help" and "Do unto others as you would have others do unto you" capture the essence of socially transmitted mores. Two of the more important and pervasive norms are those of social responsibility and reciprocity.

The norm of social responsibility connotates that we help those who are dependent upon us or need our help. As Berkowitz (1972) has said, there is evidence of helping behavior being the result of doing what is "right" apart from any obvious social or materialistic advantage. Again, research has discovered that several factors increase helping behavior of the normative sort, e.g., observing a helping model, (Macaulay, 1970; Grusec, 1972: Horstein, 1970; Horstein, Fisch, and Holmes, 1968) and being reminded about social responsibility

(Jacquet, 1971). On the other hand there do exist limits to how generalizable this explanation is. For example, the cause of the dependency (Berkowitz, 1975) and too much "hard pedalling" a la reactance theory may actually thwart the occurrence of prosocial behavior.

The norm of reciprocity (Gouldner, 1960) maintains that we help those who have helped us. The positive side of the "Golden Rule" is consistent with the reciprocity theme. Reciprocity has been shown to operate both domestically (Goranson and Berkowitz, 1966; Kahn and Tice; Berkowitz and Daniels, 1964) and internationally (Gergen, Maslach, Ellsworth, and Seipel, in press). Furthermore, variables affecting the power of reciprocity have been isolated and include the reasons for the good deed (Schopler and Thompson, 1968), the obligatory nature of the altruistic act (Brehm and Cole, 1966), assessing the resources of the helping person (Pruitt, 1968), your (the helper's) expectation about receiving help in return (Morse, 1972), and social class differences (Berkowitz and Friedman, 1967).

Just as there exist liabilities with the behavior as social exchange explanation of prosocial behavior, the normative one has its "cons" too. Probably the most serious reservation resides in the latters ex post facto character. In other words, there is the temptation to explain a behavior after it has occurred by positing some sort of norm. The conceptual difficulty is the real possibility of explaining many different behaviors, including altruism, in normative terms.

The third, and final, conceptual scheme for delving into "good" behavior is one which stresses the role of moods and feelings. In a nut shell, the idea is advanced that good moods and "good" feelings precipitate good acts whereas bad moods and "bad" feelings precipitate bad (or not good acts at least) acts. Considering moods first, it has been wagered that good moods free one from self-preoccupation and ease the ability to empathize with others

whereas bad moods lead to self-absorption and, consequently, to a reduction in the probability of being sensitive to others' needs. The feelings that ensue following an injustice or injury to another are, similarly, conducive to altruistic intervention. Guilt, as a consequence of hurting another has been found to elicit helping behavior to the injured party (Carlsmith and Gross, 1969) as well as to generalize to others present (Carlsmith and Gross, 1969). Moreover, even when a person is not personally responsible for the misdeed but sees someone else injured, helping behavior is likely to follow. The belief in a just world seems to affect the incidence of redress to suffering parties also (Simmons and Lerner, 1968). The emotional manifestation of sympathy--compassion for another's plight , has been advanced as an explanatory mechanism although the social inquiries of this have been somewhat inconsistent (Konecni, 1972). Witnessing another in need does not, however, lead to an automatic helping response since onlookers, for a variety of reasons, may believe or convince themselves that what they are viewing is justifiable (Scott and Lyman, 1968).

In summary, three explanations have been forwarded to account for helping behavior: 1) reward-cost, 2) normative, and 3) moods and feelings. Again, these are not disjoint and it has been suggested that situational dimensions will determine which provides the "best" explanation. Actually, they probably interact in the sense that if you are in a "warm glow" social norms are more salient. In a similar vein, the reward-cost formulation may be an adjunct to the normative one when situations require considerable intervention efforts.

ADDITIONAL RELEVANT EMPIRICAL RESEARCH

Midlarsky (1968) reviewed and analyzed the "aiding response" literature using three kinds of methodological designs as subdivisions for the ensuing discussion: 1) naturalistic observational studies, 2) correlational studies, and 3) experimental investigations. Much correlational research has probed for individual differences along the sociological lines, e.g., sex, age, social

class, and/or psychological lines, e.g., intelligence, interpersonal perceptions. Most of the studies that have utlized these variables as independent ones have revealed inconsistent and inconclusive outcomes.

Intelligence, for example, correlated with sharing producing a coefficient of .25. In other words, intelligent children were found to share at a more rapid rate than less intelligent children. However, it has been wagered that motivational vis-a-vis intellectual factors may be more responsible for the development of a moral code. As of Midlarsky's writing the consensus of opinion was that "whether or not intelligent people do tend to extend aid more frequently than the less intelligent is yet to be established" (p. 235).

Age has been a factor, at least among children, that has been distinguishing. Operationalizing altruism as "sharing behavior" several studies have produced significant outcomes (Midlarsky and Bryan, 1967; Handlon and Gross, 1959). However, when adults are the cynosure inconsistent results have been obtained. For instance, according to London and Hemphill (1965) a relatively large proportion of blood donors are young rather than old. On the other hand, insofar as charitable giving is a measure of altruism, Sorokin (1950) found middle aged people in comparison to younger and older people were the "good neighbors." In summary, it appears that the correspondence between age and helping behavior is not unequivocal.

Like the relationship between intelligence and age and pro-social behavior, social class has not produced consistently significant outcomes. This statement remains true whether we focus upon altruistic motivation or altruistic behavior. To illustrate, Berkowitz and Friedman (1967) found differences within the middle class when contrasting entrepreneurial and bureaucratic members. A study by Muir and Weinstein (1962) concluded that altruistic motivation is more likely to be found among lower class members than among middle or upper class persons. With respect to helping behavior inconsistencies exist. For example, London

and Hemphill (1965) found that a disproportionate number of blood donors came from the upper socio-economic categories; Ugurel-Semin (1962) discovered poor children were less selfish than middle and upper class children; and Berkowitz (1966) found that 13-16 year old adolescent boys were more willing to work hard to help others than were lower class boys. Even occupational differences (usually considered to be one [of several indices] index of social class has failed to produce clear-cut results.

In summarizing this compilation of research Midlarsky (1968:254) says: "Because of the tentative and contradictory nature of many of the findings methodological considerations are extremely important. Lack of comparability among studies is probably due to variations in 1) sampling procedures, 2) types of setting employed, and 3) dependent variables."

The General Social Survey conducted by NORC (National Opinion Research Center, University of Chicago) and distributed by the Roper Public Opinion Research Center (Williams College) asked the following query in 1974 apropos helping behavior: "Most people don't care what happens to the next fellow" "Do you agree," "disagree," "don't know" or "no answer?" The percentage distributions (with N's in parentheses) of responses were as follows: 58 (N=867), 40 (N=596), 1 (N=[illegible]), .2 (N=3), respectively. Performing a chi square goodness-of-fit test on the first two categories revealed a statistically significant outcome at the $p<.001$ level ($X^2 = 50.2$). Apparently the national probability sample believe that people care what happens to their fellow man.

A similar question was asked in the 1973 survey with a different distribution of responses. The item read: "Would you say that most of the time people try to be helpful, or that they are mostly looking out for themselves? The respective responses were: 1) "try to be helpful" 47% (N=702); 2) "just look out for themselves" 49% (N-739); 3) "depends" 4% (N=56); 4) "don't know 3%

(N=4); and 5) "no answer" 2% (N=3). Performing a chi square goodness-of-fit test on the first two categories revealed a non-statistically significant outcome ($p>.05$) with $X^2 = .95$. The substantive differences despite the different specification of the items, lead to some interesting speculation.

THE PROBLEM

Most investigations of helping behavior have dealt with fairly dramatic emergency-type situations. The basic paradigm promulgated is the bystander effect epitomized in the Kitty Genevose tragedy. Similarly the laboratory studies of Latane and Darley (lady in distress; smoke wafting from under a door) and Darley and Batson at Princeton Theological Seminary illustrate more "sensational" instances of altruistic or non-altruistic intervention. Of course, altruistic behavior can be much less dramatic as assisting a person who has dropped his/her books, providing pencils to those who need them, and the like. The present study is to be seen as a supplement to these more dramatic investigations of prosocial behavior.

In November, 1975 a Red Cross Bloodmobile was conducted for a three day period in the Union Ballroom on the Illinois State University campus. The setting made it most convenient to conduct a field study purporting to determine why one volunteers to give blood. In short, the bloodmobile provided a heuristic context for studying altruistic behavior on a college campus. A short questionnaire consisting of eight questions (See Appendix 1 for a reproduction of the instrument) was constructed with the key dependent variable being an open-ended item attempting to establish the reason(s) why blood was provided. Student interviewers were trained in the art of interviewing and, on the "why" question in particular, were encouraged to probe the donor's response, whatever it was, and particularly when the answer was ambiguous.

In the process of giving blood one must meet several people at several different "stations." For example, at one desk the donor registers, at

another station their blood count is taken and, if the blood analysis is not problematic, waits at another station before he/she are called to lie down on a table and actually donate blood. After donating they are escorted to one of several tables and provided with refreshments. It is mandatory that approximately 20 minutes be spent relaxing/recuperating/eating after the donation procedure. It was after the donation, in the canteen area, that we confronted the donors with our brief questionnaire.

At the table we attempted to obtain "independent" information on the donors' sex, race, age, religion, year in school, socio-economic status, their psychological feeling state as well as the reasons why blood was donated. While data were not collected from all donors, some 651 were queried and this figure represented about 80-85% of the official number eventually reported by the Red Cross. The data were punched on hollerith cards and then analyzed in both a univariate and bivariate manner (cross-tabulations of demographic variables with reasons for donating) via the SPSS computer program. Then we garnered data from the university's registrar apropos the number and percentage (proportion) of the entire student body (N=18,000) for each of our "causal" variables, e.g., sex, age, race, year in school, etc. With this added information we were able to compute a (single-sample) z-test for the differences between proportions enabling us to assess whether the proportion of say male donors (or females, or blacks, et cetera) was significantly different from these categories representation in the larger population. In the following section a summary of the empirical findings is exposited.

FINDINGS

The outcomes of this field study will be reported in two stages, firstly, a description of the sample characteristics (univariate analysis) and secondly, a discussion of the results of the cross-tabulations (bivariate analysis) of

the independent variables (sex, race, age, religion, year in school, socio-economic status with the dependent variable (why one made the decision to donate blood). This later procedure will be subsumed under the bivariate analysis heading. A summary table of these sample characteristics (as well as universe parameters) appears (with frequency county and percentage figures) in TABLE 1.

Univariate Analysis

Sex: Of the 651 blood donors, 41.2% (N=268) were males and 58.8% (N=383) were females.

Race: Of the total sample (N=651), 97.2% (N=633), 21.5% (N=14), and 0.6% (N=4) were white, black, and other than black or white, respectively.

Age: For purposes of data tabulation the age variable was collapsed into five mutually exclusive categories: (1) 18 and under, (2) 19, (3) 20, (4) 21, and (5) 22 and over. However, an indication of the range of age donors is worth mentioning. The youngest blood donors (N=7, 1.1%) were 17 and the oldest (N=1, 0.2%) was 61. Of the five age categories listed above, 19.97% (N=130), 23.04% (N=150), 20.74% (N=135), 17.05% (N=111), and 19.2% (N=125) were 18 and under, 19, 20, 21, and 22 and over, respectively.

Religion: The original coding scheme provided for nine different religious preference categories. While this initial classificatory paradigm does not yield mutually exclusive categories, they will be reported first and subsequently, the recorded categories. Baptists, Lutherans, Methodists/Presbyterians, Episcopalians, Christians/Nazarenes/Adventists/Mormons, Protestants, Catholics, Jews, and Atheists/Agnostics/No religious affiliation were represented in the following percentages, respectively, 4.6% (N=30), 9.1% (N=59), 14.9% (N=97), 0.8% (N=5), 9.7% (N=63), 16.3% (N=106), 33.2% (N=216), 2.3% (N=15), and 9.2% (N=60). When these categories are collapsed into mutually exclusive ones we discovered that, of the total sample, 45.6% (N=297) were Protestant, 33.2% N=216) were Catholic, 2.3% (N=15) were Jewish, 9.2% (N=60)were atheistic/agnostic,

and 9.6% (N=63) were a potpourri of non-traditional Protestant denominations such as Christian Scientists, Nazarenes, Seventh-Day-Adventists, Mormons et cetera.

Year in School: The donors were divided into six categories: (1) Freshmen (N=119), (2) Sophomores (N=144), (3) Juniors (N=152), (4) Seniors (N=152), (5) Graduate students (N=30), and (6) Non-students (most of which were employed at the university as professors, clerical staff, or maintenance help). The percentage of donors in these categories was, respectively, (1) 18.3%, (2) 22.1%, (3) 23.3%, (4) 23.3%, (5) 4.6%, and (6) 8.3%.

Socio-economic Status (SES): Occupation of father (or one's own occupation when the donor was a non-student gainfully employed) was utilized as an indicator of social class (SES). We eventually (originally there were nine classifications) subsumed SES under six rubrics: (1) professional, e.g., dentist, physician, lawyer, professor, clergy, (2) white collar (other than professional), e.g., plumber, electrician, policemen, firemen, (4) blue collar unskilled, e.g., factory worker, sanitation worker, custodial staff, (5) farmer, and (6) clerical and miscellaneous. The corresponding percentages and frequencies for these categories were: (1) 9.8% (N=64), (2) 37.6% (N=245), (3) 19.8% (N=129), (4) 7.8% (N=51), (5) 11.2% (N=73), and (6) 13.7% (N=89).

Reasons for Donating Blood: The key dependent variable of this investigation was why the individual performed the pro-social act, that is, donated blood. Our original classification scheme produced nine categories. These divisions were decided upon after the senior researcher reviewed and edited a sample of the 651 interview schedules. Although these nine categories were eventually collapsed, we will first report the appropriate statistical data for them. The modal response category was some expression of the social responsibility norm. In other words, 37.6% (N=245) mentioned that they donated

blood to help others, because others need it, etc. Very closely related to this rationale was one in which the individual indicated blood was given to help others as well as oneself. Of the total sample, 11.2% (N=73) indicated this reason. We separately recorded these reasons since the former explanation fits more closely the definition of altruism whereby a person does a good deed as an end in itself rather than for a combination of helping others as well as oneself. Nevertheless, if these two response categories are combined, we discover that nearly fifty percent (48.8%, N=318) of all donors seemed to be altruistic for the helping others motivation. Other reasons advanced for the donation included: (1) a sense of obligation (one should help) 9.8% (N=64), (2) because it was a project for a class, sorority, fraternity or some other social organization (or a friend had suggested it) 3.8% (N=25), (3) because a specific person, e.g., friend, spouse, brother, sister, parent, etc. needed it 7.8% (N=51), (4) because they wanted to (no special reason why) 13.7% (N=89), (5) to give them "something to do" 3.8% (N=25), (6) they really didn't know why 2.8% (N=18), and for a miscellany of reasons 9.4% (N=61).

A perusal of the interview schedules, apropos to why they donated blood, suggested several different possibilities for collapsing the nine original categories. A knowledge of the altruism/pro-social behavior literature can present a problem insofar as the collapsing of categories (as well as classifying the reasons for such a donation) is concerned. Nevertheless, it seemed logical to place together those reasons suggesting the importance for helping others. Therefore, "to help others," "to help others and oneself," to help a "specific person," and because one "wanted to" were treated together. Consequently, 70.3% (N=458) we believed responded "to the call" out of a sense of social responsibility. About 10% apparently contributed out of a sense of obligation with the remaining 20% donating blood for a variety of reasons. In our judgment the 70% figure is a conservative figure, that is,

we do not believe reasons were "forced" into that category.

Psychological Feeling State: The purpose of this open-ended query was to tap the experiential dimension of helping behavior. Unfortunately, the interviewers sometimes failed to focus upon the psychic component and, instead, recorded the expression of the physical condition of the donor. In any event, 69.3% (N=451) explicitly stated they felt good/happy/elated about having been able to give blood. On the other hand, there were six people (0.9%) who expressed an unhappy/bad feeling about their prosocial act. The other 29% of the responses indicated either a feeling of relief, or an expression of physical well-being, or some miscellaneous response.

Bivariate Analysis: Each of the six independent variables (sex, race, age, religion, year in school, and socio-economic status was cross-classified with the dependent variable (reasons for donating blood). The purpose, of course, of this statistical procedure was to determine whether statistically significant differences between/among the categories of the independent variables were related to the dependent variable. Only one of the independent variables approximated the requirements for statistical significance, that is, produced an outcome due to chance variation five or fewer times in one hundred ($p \leq .05$). However, a statement will be made apropos to the level of significance of all the independent variables. TABLE 2 contains summary statistics for these cross-tabulations.

Sex ($p=.28$), age ($p=.62$), religion ($p=.55$), and year in school ($p=.18$) when cross-classified with reasons for donating blood were far removed from generally acceptable standards ($p \leq .05$) of statistical significance.

For all practical purposes, race as an independent variable achieved statistical significance ($p=.057$). A scrutiny of the response categories indicated that the modal response (reasons for donating blood) for blacks (44.4%)

was for a social organization, e.g., fraternity or sorority because they wanted something to do/didn't know, in contrast to the modal response for whites (38.1%) who gave out of a response to a feeling of social responsibility. Other response differences were these: no non-whites vs. ten percent of whites donated blood because of a sense of obligation; no non-whites vs. 8.1% of whites gave blood for a specific person who needed it.

The socio-economic status variable reached a nearly acceptable level of significance ($p=.06$). The contingency table emerging from this crossbreak is a 6 x 6 one. As such, it is a bit difficult to observe patterns. However, the distribution of percentages suggested a couple of things: (1) farmers (16.1%) and clerical workers (15.8%) indicated they had donated blood out of a feeling of obligation (the other SES categories ranged from a low of 3.9% to a high of 9.0% for the same reason). (2) There is almost a perfect linear relationship for response category four, or, donating blood because a specific person needs it. Although the percentage change from one SES category to another is not great, it slowly increases from 6.7% among professionals to a high of 10.8% among clerical workers.

z-Test of Significance of Differences between Proportions

The social structure of a university campus is heterogeneous. For our purposes we raised the query: "Is the proportion (or percentage) of donors in the obtained socio-demographic variables different from that of the university as a whole?" To statistically answer this question we consulted the university's Registrar and requested a breakdown (in n's and %'s) of the entire college's characteristics. In TABLE 1 there are two columns--"N (population)" and "% (population)"--that contain this information. The data for the sample of donors and the university's parameters are comparable except that religious affiliation information is not recorded by the university and SES categories are less than desirable for comparative and statistical purposes (the university

records income data whereas our classifications are for occupational categories). With this information a z-test (single sample) of proportions enabled us to determine whether the sample's statistics were significantly different from the universe's parameters. TABLE 1 contains this information along with standard errors, z-values, and levels of significance.

One of the most significant findings emerging from this analysis regarded gender. Females were significantly (statistically, $p<.05$) over-represented as donors vis-a-vis their numbers (and %'s) in the population whereas males were significantly ($p<.05$) underrepresented. With respect to race, whites were over-represented ($p<.001$) in the sample in comparison to their proportion in the entire population. The sample of donors insofar as year in school was concerned were not represented in different percentages than their makeup in the university as a whole. Two age categories were over-represented in the sample, viz., 17-18 ($p<.001$) and 19 ($p<.05$) whereas the gross age category 22-71 was significantly ($p<.001$) underrepresented. Finally, information on religious status (parameters) were not available.

TABLE 1

SUMMARY STATISTICAL DATA FOR GENDER, RACE, AGE, RELIGION, YEAR IN SCHOOL AND OCCUPATION FOR SAMPLE OF BLOOD DONORS (n=651) AND UNIVERSE (N=17,969)

Variable and Categories	N(population)	%(population)	n(sample)	%(sample)	standard error	Z-value	significance
Gender							
Male	8,334	41.2	46.4	268	.03	-1.73	p<.05
Female	9,635	58.8	53.6	383	.025	2.08	p<.05
Race							
Black-American	1,711	9.52	2.15	14	.078	0.94	N.S.
White	15,823	88.1	97.2	633	.013	7.00	p<.001
Other	435	2.42	0.61	4	.077	0.24	N.S.
Age							
17-18	94	0.52	130	19.97	.006	32.42	p<.001
19	2,938	16.4	150	23.04	.03	2.21	p<.05
20	3,243	18.05	135	20.74	.033	0.82	N.S.
21	3,428	19.08	111	17.05	.037	0.55	N.S.
22-71	8,266	46.00	125	19.20	.044	-6.09	p<.001
Religion							
Protestant			297	45.6			
Catholic	Information not		216	33.2		Information not	
Jewish	Available		15	2.3		Available	
atheist/agnostic			60	9.2			
miscellaneous			63	9.6			
Year in School							
Freshman	3,709	20.6	119	18.3	.037	-0.62	N.S.
Sophomores	3,656	20.3	144	22.1	.034	0.53	N.S.
Juniors	3,947	21.9	152	23.3	.034	0.41	N.S.
Seniors	4,007	22.3	152	23.3	.034	-0.29	N.S.
Graduate Students	2,118	11.8	30	4.6	.059	-1.22	N.S.
Non-students	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Unclassified	532	30	54	8.3	.023	N.A.	N.A.

TABLE 1 Continued

Variable and Categories	N(population)	%(population)	n(sample)	%(sample)	standard error	Z-value	significance
Occupation							
Professional			64	9.8			
White Collar (non-professional)			245	37.6			
Blue Collar (skilled)			129	19.8			
Blue Collar (unskilled)			51	7.8			
Farmer			73	11.2			
Clerical/Miscellaneous			89	13.7			
Why you donated blood:							
obligation			64	9.8			
to help others			245	37.6			
for a social organization			129	19.8			
for a specific person			51	7.8			
to help others and myself			73	11.2			
miscellaneous reasons			89	13.7			
How do you feel?							
good/happy/elated			451	69.3			
other than good/happy/elated			200	30.7			

TABLE 2

SUMMARY TABLE OF CROSS-TABULATIONS OF INDEPENDENT VARIABLES WITH DEPENDENT VARIABLES: RELEVANT STATISTICS

Dependent Variable	Independent Variable	Chi square	df	LOS*	C**	V***	U****
Reasons for donating blood	sex	6.22	5	.28	.10	.10	.003
Reasons for donating blood	race	10.72	5	.06	.13	.13	.006
Reasons for donating blood	age	17.55	20	.62	.16	.08	.008
Reasons for donating blood	religion	18.61	20	.55	.17	.08	.01
Reasons for donating blood	year in school	25.51	20	.18	.19	.10	.01
Reasons for donating blood	socio-economic status	36.68	25	.06	.23	.11	.02

KEY:

LOS* = level of significance
C** = contingency coefficient
V*** = Cramer's V
U****= uncertainty coefficient (asymmetric)

APPENDIX 1

1. Sex: Male_____ Female_____

2. Race: Caucasian_____ Black_____ Other _____ (specify)

3. Age: _____

4. Religion: _____

5. Year in school: Frosh_____ Sophomore_____ Junior_____ Senior_____

   Graduate Student_____ Other_____(specify)

6. Occupation: _____(if student, ask for father's occupation)

7. Would you please tell me the reasons why you donated blood?

8. Would you please tell me how you feel now that you've donated blood?

Miscellaneous observations:

REFERENCES

Allen, H. An exploratory study in bystander intervention and helping behavior in the subway. Unpublished doctoral dissertation, New York University, 1970. Cited by J. Darley and B. Latane, Norms and normative behavior: Field studies of social interdependence. In J. Macaulay and L. Berkowitz (Eds.), Altruism and helping behavior: Social psychological studies of some antecedents and consequences. New York: Academic Press, 1970. Pp. 93-96.

Berkowitz, L. Reactance and the unwillingness to help. Psychological Bulletin, 1973, 79, 310-317.

Berkowitz, Leonard. A Survey of Social Psychology: Hinsdale, Illinois: 1975. The Drydon Press.

Berkowitz, L. Social norms, feelings, and other factors affecting helping and altruism. In L. Berkowitz (ed.) Advances in Experimental Social Psychology. Vol. 6 New York: Academic Press, 1972, pp. 63-108.

Berkowitz, L., and Daniels, L. Affecting the salience of the social responsibility norm: Effects of past help on the response to dependency relationships. Journal of Abnormal and Social Psychology, 1964, 68, 275-281.

Berkowitz, L., and Friedman, P. Some social class differences in helping behavior. Journal of Personality and Social Psychology, 1967, 5, 217-225.

Brehm, J., and Cole, A. Effect of a favor which reduces freedom. Journal of Personality and Social Psychology, 1966, 3, 420-426.

Carlsmith, J., and Gross, A. Some effects of guilt on compliance. Journal of Personality and Social Psychology, 1969, 11, 232-240.

Darley, J., and Batson, D. ". . . From Jerusalem to Jericho:" A Study of situational and dispositional variables in helping behavior. Journal of Personality and Social Psychology, 1973, 27, 100-108.

Darley, J., and Latane, B. Norms and normative behavior: Field studies of social interdependence. In J. Macaulay and L. Berkowitz (Eds.) Altruism and helping behavior: Social psychological studies of some antecedents and consequences. New York: Academic Press, 1970, Pp. 83-101.

Feldman, R. Response to compatriot and foreigner who seek assistance. Journal of Personality and Social Psychology, 1968, 10, 202-214.

Fellner, C., and Marshall, J. Kidney donors. In J. Macaulay and L. Berkowitz (Eds.), Altruism and helping behavior: Social psychological studies of some antecedents and consequences. New York: Academic Press, 1970, Pp. 269-281.

Gergen, K., Maslach, C., Ellsworth, P., and Seipel, M. Obligation, donor resources, and reactions to receiving aid in three nations. Journal of Personality and Social Psychology, in press.

Goodstadt, M. Helping and refusal to help: A test of balance and reactance theories. Journal of Experimental Social Psychology, 1971, 7, 610-622.

Goranson, R., and Berkowitz, L. Reciprocity and responsibility reactions to prior help. Journal of Personality and Social Psychology, 1966, 3, 227-232.

Gouldner, A. The norm of reciprocity: A preliminary statement. American Sociological Review, 1969, 25, 161-178.

Grusec, J. Demand Characteristics of the modeling experiment: Altruism as a function of age and aggression. Journal of Personality and Social Psychology, 1972, 22, 139-148.

Handlon, J. and Gross, P. The development of sharing behavior. Journal of Abnormal and Social Psychology, 1959, 59, 425-428.

Hornstein, H., Fisch, E., and Holmes, M. Influence of a model's feeling about his behavior and his relevance as comparison on other observers helping behavior. Journal of Personality and Social Psychology, 1968, 10, 222-226.

Kahn, A., and Tice, T. Returning a favor and retaliating harm: The effects of stated intentions and actual behavior. Journal of Experimental Social Psychology, 1973, 9, 43-56.

Konecni, V. Some effects of guilt on compliance: A field replication. Journal of Personality and Social Psychology, 1972, 23, 30-32.

Krebs, D.L. Altruism: An examination of the concept and a review of the Literature. Psychological Bulletin, 72:258-302.

London, P. and Hemphill, B.M. The motivations of blood donors. Transfusion, 1965, 5, 559-568.

Macaulay, J. A shill for charity. In J. Macaulay and L. Berkowitz (eds.) Altruism and helping behavior: Social psychological studies of some antecedents and consequences. New York: Academic Press, 1970, Pp. 43-59.

Middlebrook, Patricia Miles. Social Psychology and Modern Life. New York: Alfred A. Knopf, 1974.

Midlarsky, Elizabeth. Aiding responses: An analysis and review. Merrill-Palmer Quarterly 1968, 14(3), 229-260.

Midlarsky, E. and Bryan, J.H. Training charity in children. Journal of Personality and Social Psychology, 1967, 5, 408-415.

Morse, S. Help, likeability, and social influence. Journal of Applied Social Psychology, 1972, 2, 34-46.

Muir, D. and Weinstein, E. The social debt: an investigation of lower class and middle-class norms of social obligation. American Sociological Review, 1962, 27, 532-539.

Pruitt, D. Reciprocity and credit building in a laboratory dyad. Journal of Personality and Social Psychology, 1968, 8, 143-147.

Schaps, E. Cost, dependency, and helping. Journal of Personality and Social Psychology, 1972, 21, 74-78.

Schopler, J., and Thompson, V. Role of attribution processes in mediating amount of reciprocity for a favor. Journal of Personality and Social Psychology, 1968, 10, 243-250.

Scott, M., and Luman, S. Accounts. American Sociological Review, 1968, 33, 46-62.

Simmons, C., and Lerner, M. Altruism as a search for justice. Journal of Personality and Social Psychology, 1968, 9, 216-225.

Smith, V. Nonpersuasively induced dissonance-reducing covert altruistic action. Psychological Reports, 1969, 25-228.

Sorokin, P.A. Altruistic love: a study of American "good neighbors" and Christian Saints. Boston: Beacon, 1950.

Titmus, Richard. The give relationship. London: George Allen and Unwin, 1970.

Traester, J. Army chaplain decorated for bravery in Vietnam. The New York Times, June 6, 1968, p. 4.

Ugurel-Semin, R. Moral behavior and moral judgment of children. Journal of Abnormal and Social Psychology, 1952, 47, 463-474.

Wagner, C., and Wheeler, L. Model, need, and cost effects in helping behavior. Journal of Personality and Social Psychology, 1969, 12, 111-116.

Winchester, J. Volunteer firemen: Heroes without pay. Popular Science, 1969, 194, 94-97.